

US EPA ARCHIVE DOCUMENT

July 21, 2000

The Honorable Mindy S. Lubber
Regional Administrator
United States Environmental Protection Agency
Region 1 – New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

**Re: *Eight Hour Ozone National Ambient Air Quality Standard
Recommended Designations for Connecticut***

Dear Administrator Lubber:

Pursuant to section 107(d)(1) of the Clean Air Act (CAA) and section 6103(a) of the Transportation Equity Act for the 21st Century (TEA-21), your Agency has requested that Governors submit recommendations regarding attainment designations and geographic boundaries for the recently promulgated eight-hour ozone national ambient air quality standards (NAAQS). It is my understanding that EPA plans to propose designations later this summer and finalize designations no earlier than late December. Further, designations will be effective no sooner than early 2001, dependent on the status of ongoing litigation and administrative proceedings related to the eight-hour standards.

Section 107(d)(1) of the CAA requires areas to be designated nonattainment if they do not meet the NAAQS or contribute to ambient air quality in a nearby area that does not meet the standard. EPA guidance¹ recommends that metropolitan areas (identified by the U.S. Census Bureau) serve as the presumptive boundaries for 8-hour nonattainment areas. As described in the enclosed package, available air quality data indicate all of Connecticut currently exceeds the 8-hour ozone NAAQS. Based on these data and consistent with New England County Metropolitan Area (NECMA) boundaries, I recommend that two separate 8-hour ozone nonattainment areas be established in Connecticut (see the attached figure):

- 1) "Southwest Connecticut", including all of Fairfield and New Haven Counties, as part of a larger multi-state nonattainment area with metropolitan New York and northern New Jersey; and
- 2) "Greater Connecticut", including the remaining counties in Connecticut (i.e., Litchfield, Hartford, Tolland, Windham, Middlesex, and New London Counties).

Consistent with Connecticut's use of NECMA boundaries, I also recommend that:

- 1) The Rhode Island portion of the New London Metropolitan Statistical Area (MSA) be excluded from the Greater Connecticut 8-hour ozone nonattainment area; and

¹ "Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQS or Standard)"; Memorandum from John Seitz, Director, Office of Air Quality Planning and Standards to EPA Regional Air Directors; March 28, 2000.

- 2) The Connecticut portion of the Boston-Worcester-Lawrence Consolidated Metropolitan Statistical Area (CMSA) (i.e., the Town of Thompson) be included with the Greater Connecticut 8-hour ozone nonattainment area.

It is my understanding that these variances from the respective MSA and CMSA boundaries are consistent with the recommended boundaries submitted by the States of Rhode Island and Massachusetts.

In addition to the above recommendations for the State of Connecticut, I have instructed the Department of Environmental Protection to review and comment, as appropriate, on the 8-hour ozone nonattainment designations and boundaries proposed by other states.

I would like to emphasize that, although EPA intends to establish 8-hour nonattainment boundaries generally consistent with the boundaries of metropolitan areas, attainment of the ozone NAAQS in Connecticut (and elsewhere in the Northeast) cannot be achieved unless emission reductions are secured over a geographic region much larger than any single nonattainment area. EPA's recent actions requiring regional NO_x reduction in the eastern U.S. and tighter national emission limits on motor vehicles and fuels are examples of the types of control programs that will be needed.

In closing, Connecticut reaffirms its commitment to work with Northeast and other states and EPA to identify and pursue adoption of additional regional emission reductions both within the Ozone Transport Region and in areas further upwind that contribute to unhealthy ozone levels in Connecticut and elsewhere. Although we intend to do our fair share to reduce Connecticut's contribution to unhealthy ozone levels both within our borders and further downwind, we expect EPA to hold all states to a standard which would mitigate their contribution to any other state's ozone problems.

Please contact Carmine DiBattista, Chief of the Department of Environmental Protection's Bureau of Air Management at (860) 424-3026 with any questions regarding these recommendations. Thank you.

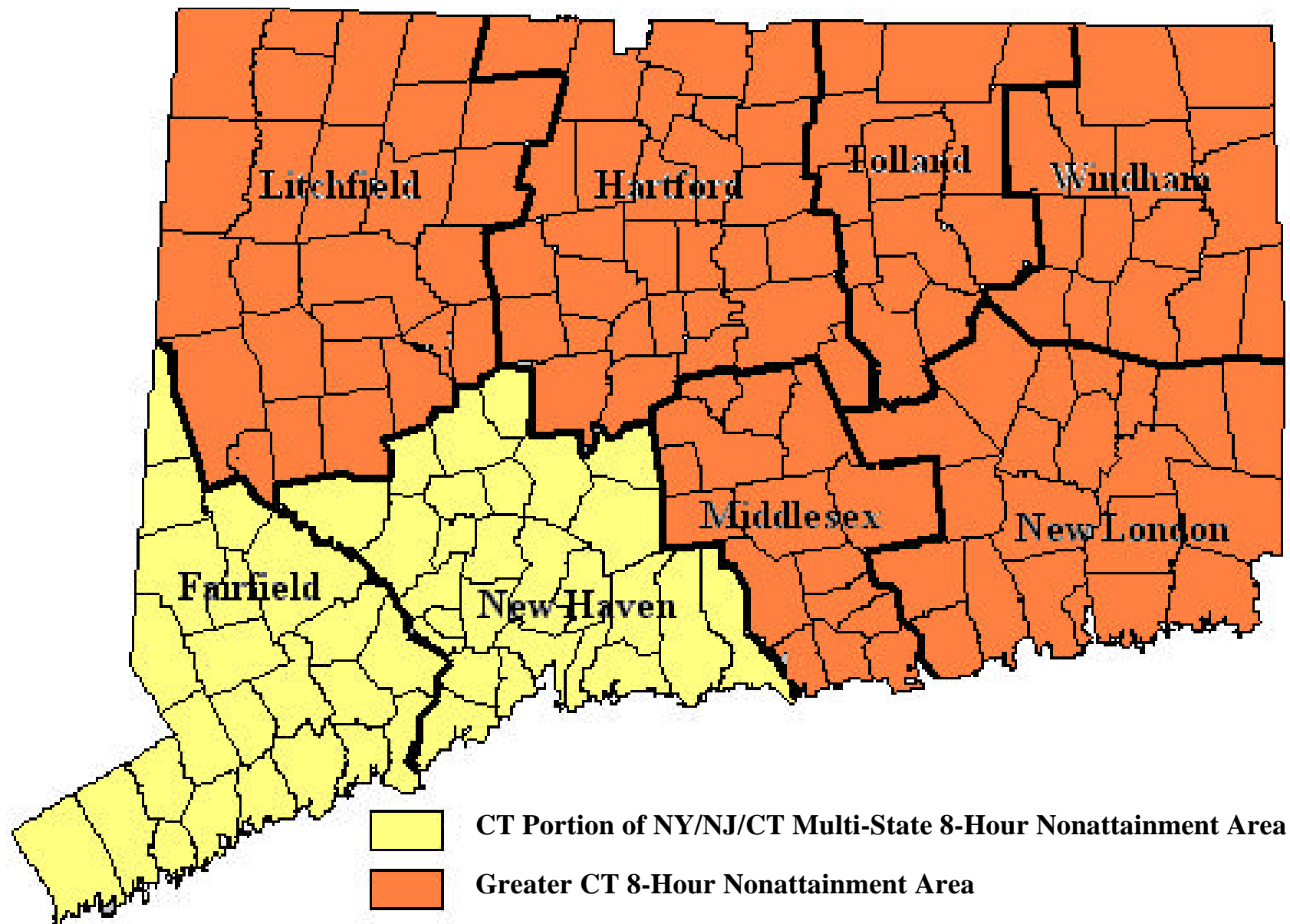
Sincerely,

JOHN G. ROWLAND
Governor

JGR/PMB/pmb
Attachment (Figure)
Enclosure (Support Document)

c: D. Conroy (EPA Region I)
A. Rocque (CTDEP)
C. DiBattista (CTDEP)

ATTACHMENT
Recommended 8-Hour Ozone Nonattainment Area Boundaries



Support Document

**State of Connecticut Recommendations to the
US Environmental Protection Agency Regarding
8-Hour Ozone Attainment Designations**

**Connecticut Department of Environmental Protection
Bureau of Air Management**

July 13, 2000

Support Document

Eight-Hour Ozone National Ambient Air Quality Standard

State of Connecticut's Recommended Designations

(July 13, 2000)

Summary

Pursuant to the Clean Air Act (CAA), the Governor of each State is provided the opportunity to submit recommendations to the Environmental Protection Agency (EPA) regarding attainment/nonattainment designations for new or revised national ambient air quality standards (NAAQS). In July 1997, EPA promulgated a new 8-hour ozone NAAQS. In accordance with section 6103 of the Transportation Equity Act for the 21st Century (TEA-21), EPA is required to designate all areas relative to the new standard by July 2000. On May 14, 1999, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision remanding, but not vacating, the 8-hour ozone NAAQS. EPA subsequently issued guidance on March 28, 2000 describing the timeline it would follow for designations and requesting that each State Governor submit their designation recommendations to the appropriate EPA Regional Administrator by June 30, 2000. The guidance also states that EPA will not make final designation determinations before late December 2000 and that the effective date of the designations will be no sooner than early in 2001.

Based on measured ambient data, all of Connecticut currently exceeds the 8-hour ozone NAAQS. As a result, the entire state must be classified as nonattainment for the new standard. The Governor's recommendation regarding geographic boundaries is to establish two separate 8-hour nonattainment areas in Connecticut: 1) "Southwest Connecticut", including all of Fairfield and New Haven Counties, as part of a larger multi-state nonattainment area with metropolitan New York and northern New Jersey; and 2) "Greater Connecticut", including the remaining counties in Connecticut (i.e., Litchfield, Hartford, Tolland, Windham, Middlesex, and New London Counties). The recommended boundaries are consistent with New England County Metropolitan Area (NECMA) boundaries identified by the U.S. Census Bureau.

Background Information

On July 18, 1997, the EPA revised the ozone NAAQS by adding a standard for 8-hour averaging periods. The EPA established the 8-hour ozone NAAQS at a level of 0.08 parts per million (ppm). An area is in compliance with the NAAQS when the 3-year average of the annual 4th-highest daily maximum 8-hour ozone concentrations (i.e., the design value) does not exceed the standard at any monitoring site in the area.

When a new or revised NAAQS is promulgated, Section 107(d)(1) of the CAA enables Governors to submit a list of all areas in their state, designating each as nonattainment, attainment, or unclassifiable based on available information. The CAA provision allows up to

one year after promulgation of a new or revised NAAQS for Governors to make designation recommendations (i.e., by July 18, 1998 for the new 8-hour ozone NAAQS). However, this provision was superceded by section 6103(a) of the Transportation Equity Act for the 21st Century (TEA-21), which provided Governors with an additional year (i.e., by July 18, 1999) to make recommendations for the new 8-hour standard. Based on available data, Governor Rowland made an initial recommendation to EPA on July 14, 1999 that the entire State be designated as nonattainment for the 8-hour standard. In addition, in light of the May 14, 1999 remand of the standard by the U.S. Court of Appeals for the District of Columbia Circuit, Governor Rowland indicated that his specific recommendations regarding nonattainment area boundaries would be withheld until EPA issued further guidance on the issue.

EPA issued additional guidance regarding 8-hour ozone designations on March 28, 2000 ("Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQS or Standard)"; Memorandum from John Seitz, Director, Office of Air Quality Planning and Standards to EPA Regional Air Directors; March 28, 2000). EPA's presumption is that 8-hour ozone nonattainment area boundaries should reflect the boundaries of the applicable Metropolitan Statistical Area or the Consolidated Metropolitan Statistical Area (C/MSA). States may request that a nonattainment area be expanded or contracted relative to these presumptive boundaries, provided adequate justification is presented as part of the Governor's designation recommendation. The guidance also requests that Governors submit their recommendations for 8-hour nonattainment boundaries by June 30, 2000.

Current Connecticut C/MSA boundaries (identified by the U.S. Census Bureau based on 1990 census data) are depicted in Figure 1. Connecticut contains all, or portions, of four metropolitan areas:

- 1) The Connecticut portion of the New York-Northern New Jersey-Long Island CMSA;
- 2) The Hartford CMSA;
- 3) The Connecticut portion of the New London CMSA (which also includes the two bordering towns of Westerly and Hopkinton in Rhode Island); and
- 4) The Connecticut portion of the Boston-Worcester-Lawrence CMSA (Connecticut's portion consists only of the Town of Thompson).

Several towns in northwest and eastern Connecticut are not included in any metropolitan area.

C/MSA boundaries follow county boundaries (or their equivalent) in all regions of the country except for New England, where cities and towns are used to define C/MSA boundaries. The U.S. Census Bureau also identifies a county-based alternative for identifying metropolitan areas in New England, known as New England County Metropolitan Areas (NECMA's). Connecticut currently has three NECMA's, as depicted in Figure 2:

- 1) The New Haven-Bridgeport-Stamford-Waterbury-Danbury NECMA (i.e., Fairfield and New Haven Counties, as part of the New York City metropolitan area);

- 2) The Hartford NECMA (i.e., Hartford, Tolland, and Middlesex Counties);
- 3) The New London-Norwich NECMA (i.e., New London County).

Litchfield and Windham Counties are not included in any NECMA.

Recommended Designations and Nonattainment Boundaries for Connecticut

The Connecticut Department of Environmental Protection operates 11 ozone monitoring stations in Connecticut. Figure 3 depicts the monitoring network locations during the period from 1997 through 1999. Current 1-hour nonattainment boundaries are also displayed. Table 1 summarizes the annual frequency of 8-hour exceedances at these sites, as well as the most recent 8-hour design values.

Design value data for the 1997 through 1999 period exceed the 8-hour ozone NAAQS of 0.8 ppm at all monitoring locations in Connecticut. Current design values range from 0.103 ppm at Westport and Madison to 0.086 ppm at New Haven and 0.091 ppm at East Hartford. The average number of exceedance days over the 1997 to 1999 period ranged from about 15 days per year at Madison to 5 days per year at New Haven. Note that the New Haven monitor was removed after the 1999 season. Peak ozone measurements at the New Haven site were typically reduced due to scavenging by NO_x emissions from immediately adjacent interstate highways. A new monitoring site in Hamden (located approximately 3 miles north of the New Haven site) began operation in 1999.

Based on these data, it is recommended that all of Connecticut be designated as nonattainment for the 8-hour ozone NAAQS and that the EPA establish two separate 8-hour nonattainment areas in the state, as depicted in Figure 4:

- 1) ***“Southwest Connecticut”***, including all of Fairfield and New Haven Counties, as part of a larger multi-state nonattainment area with metropolitan New York and northern New Jersey;
- 2) ***“Greater Connecticut”***, including the remaining counties in Connecticut (i.e., Litchfield, Hartford, Tolland, Windham, Middlesex, and New London Counties).

The recommended boundaries are generally consistent with EPA’s preference that 8-hour nonattainment boundaries reflect those of the corresponding metropolitan areas. Although C/MSA boundaries are not used, the recommended county boundaries are consistent with the alternative NECMA approach identified by the U.S. Census Bureau for New England. Use of county level boundaries in Connecticut will be consistent with the approach used to define C/MSA’s in all areas of the country (including the remainder of the New York CMSA) except New England. Furthermore, the use of county-level boundaries will streamline the development of emission inventories, which, under EPA’s new NET reporting procedures, must be determined on a county-level basis.

Consistent with the use of NECMA boundaries, Connecticut also recommends that:

- 1) The Rhode Island portion of the New London MSA be excluded from the Greater Connecticut 8-hour ozone nonattainment area; and

- 2) The Connecticut portion of the Boston-Worcester-Lawrence CMSA (i.e., the Town of Thompson) be included with the Greater Connecticut 8-hour ozone nonattainment area.

Based on discussions with air quality officials from Rhode Island and Massachusetts, these variances from the respective C/MSA boundaries are consistent with the boundaries recommended by each of those States.

Additional Recommendation on Implementation

Although EPA intends to establish 8-hour nonattainment boundaries generally consistent with the boundaries of metropolitan areas, it is important to recognize that attainment of the 8-hour ozone NAAQS in Connecticut (and elsewhere in the Northeast) cannot be achieved unless emission reductions are secured over a geographic region much larger than any single nonattainment area. EPA's recent actions requiring regional NO_x reduction in the eastern U.S. and tighter national emission limits on motor vehicles and fuels are examples of the types of control programs that will be needed.

Connecticut reaffirms its commitment to work with the other Northeast states and EPA to identify and pursue adoption of additional regional emission reductions both within the Ozone Transport Region and in areas further upwind that contribute to unhealthy ozone levels in Connecticut and elsewhere in the Northeast. Although we intend to do our fair share to reduce Connecticut's contribution to unhealthy ozone levels both within our borders and further downwind, EPA needs to improve on the procedures it uses to address the ozone transport issue. For example, rather than continuing to separate the State Implementation Plan (SIP) approval process from the transport provisions of the Clean Air Act, EPA should integrate these processes. By directly linking SIP approvals for upwind areas to the transport provisions of section 110(a)(2)(D) of the Act, attainment SIP's for each area would be required to include sufficient controls to mitigate that area's contribution to downwind nonattainment.

Table 1
Eight-Hour Ozone Exceedances and Design Values

Monitoring Site (Site ID)	County	Average Number of Exceedance Days (1997-1999)	1997-1999 Design Value¹ (ppm)
Westport (09-001-9003-1)	Fairfield	13.7	.103
Danbury (09-001-1123-1)	Fairfield	13.0	.101
Greenwich (09-001-0017-1)	Fairfield	12.0	.099
Stratford (09-001-3007-1)	Fairfield	12.3	.098
Madison (09-009-3002-1)	New Haven	14.7	.103
New Haven ² (09-009-1123-1)	New Haven	5.0	.086
Middletown (09-007-0007-1)	Middlesex	10.7	.099
Torrington (09-005-0006-1)	Litchfield	10.0	.097
Stafford (09-013-1001-1)	Tolland	10.0	.095
Groton (09-011-0008-1)	New London	10.7	.094
East Hartford (09-003-1003-1)	Hartford	6.7	.091

Note: Shaded areas in the table indicate monitors located in the recommended Southwest Connecticut portion of the NY/NJ/CT multi-state 8-hour nonattainment area. All other monitors are located in the recommended Greater Connecticut 8-hour nonattainment area.

1. Monitors with design values equal to or exceeding 0.085 ppm are violating the 8-hour ozone standard.
2. The New Haven monitor was removed after the 1999 season. Peak ozone measurements at the New Haven site were typically reduced due to scavenging by NO_x emissions from nearby interstate highways. A new monitoring site in Hamden (located about 3 miles north of the New Haven site) began operation in 1999.

Figure 1
Metropolitan Statistical Areas in Connecticut
 (Identified by US Census Bureau, based on 1990 census data)

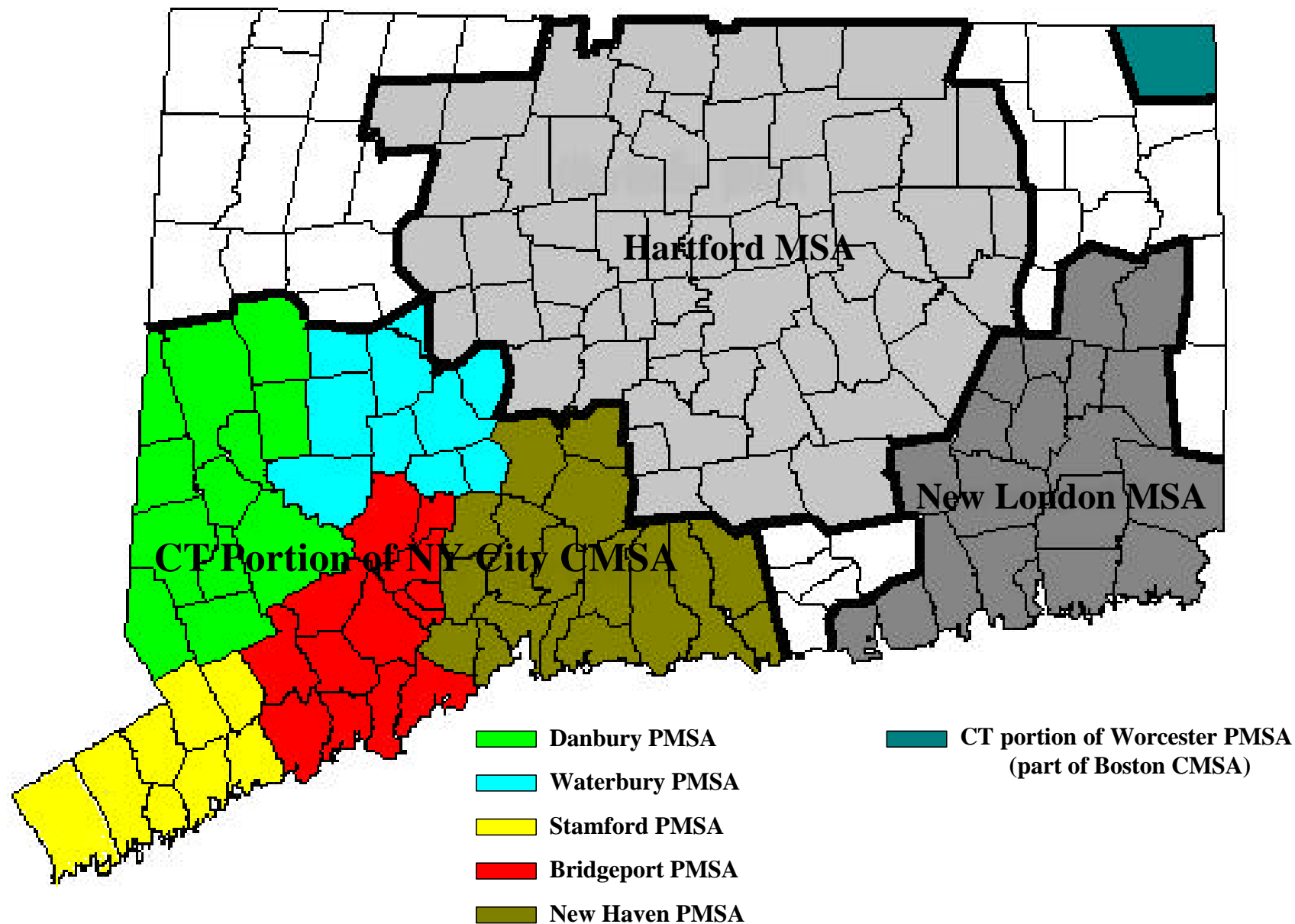
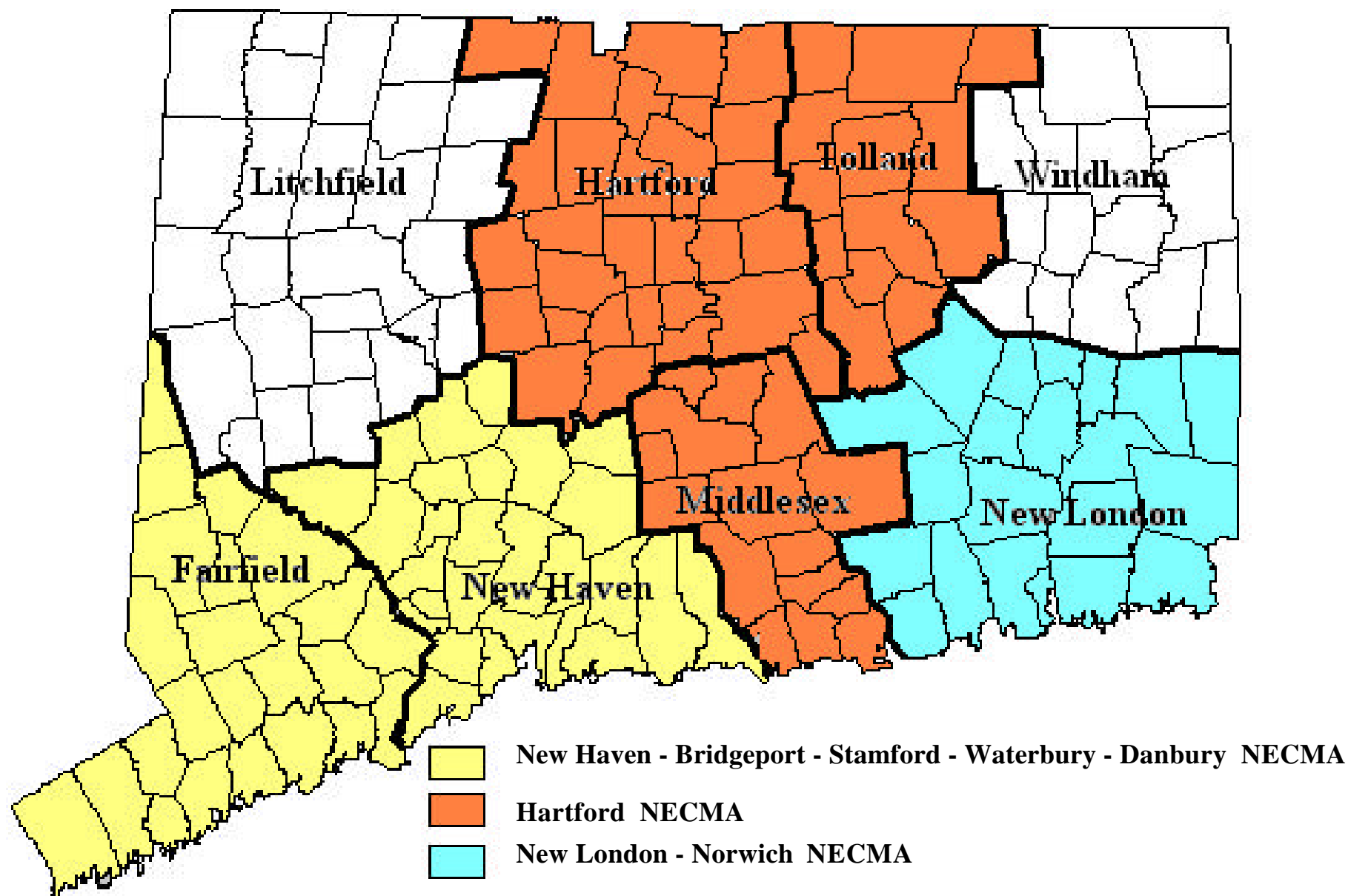


Figure 2
New England County Metropolitan Areas in Connecticut
 (Identified by US Census Bureau, based on 1990 census data)



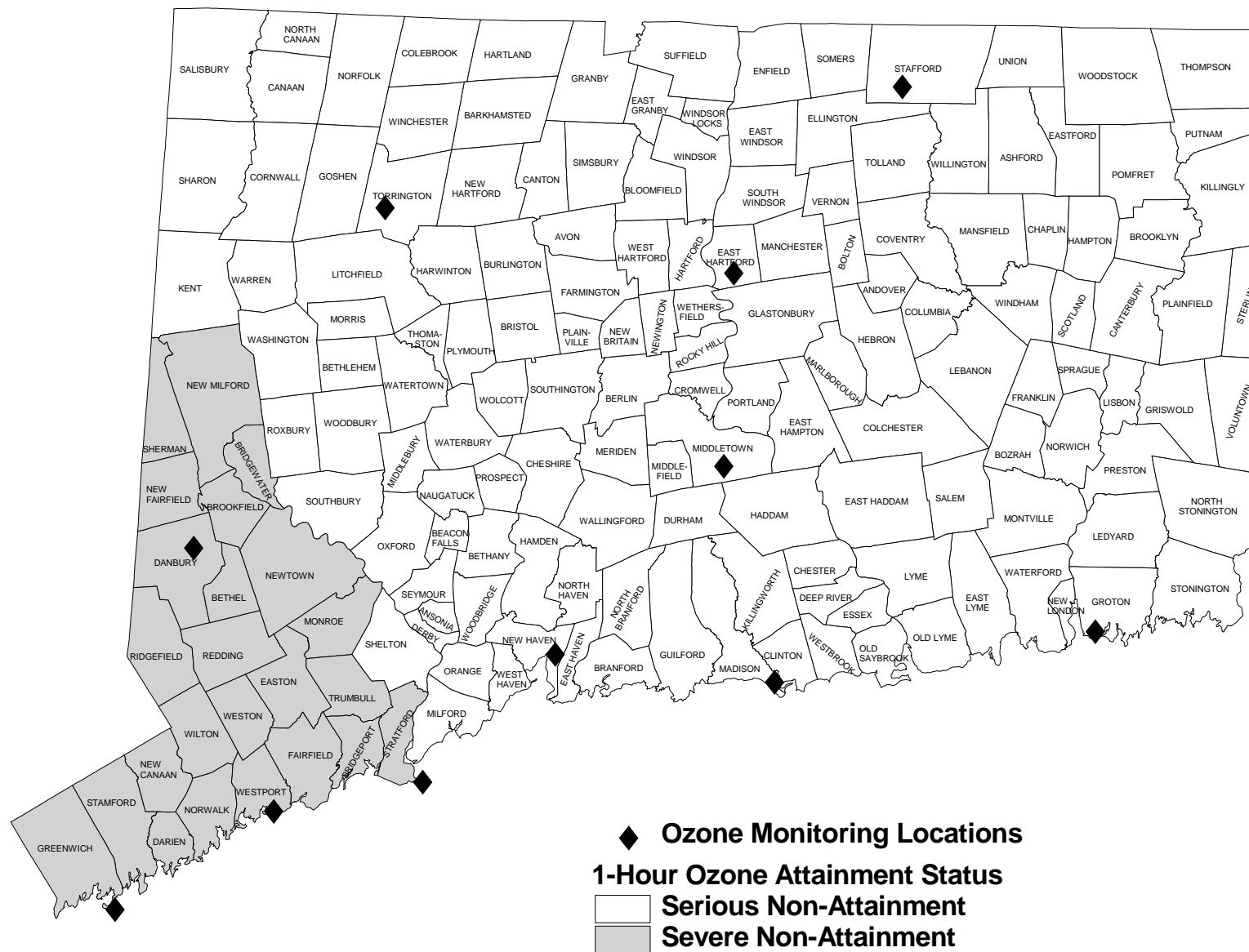


Figure 4
Recommended 8-Hour Ozone Nonattainment Area Boundaries

